

Fig S2. Localization of GFP-aaRS fusions in heterocysts of *Anabaena*.

Cells expressing the fusion protein indicated at the left of each panel were cultured in BG11<sub>0</sub> medium (lacking a source of combined nitrogen) for 24 hours and analyzed by confocal fluorescence microscopy. In each panel the central cell with low autofluorescence corresponds to a heterocyst and the flanking cells are vegetative cells.